NEW BUS FOR LONDON
Briefing paper for DfT/VCA/VOSA
Outline operational practices & certification issues

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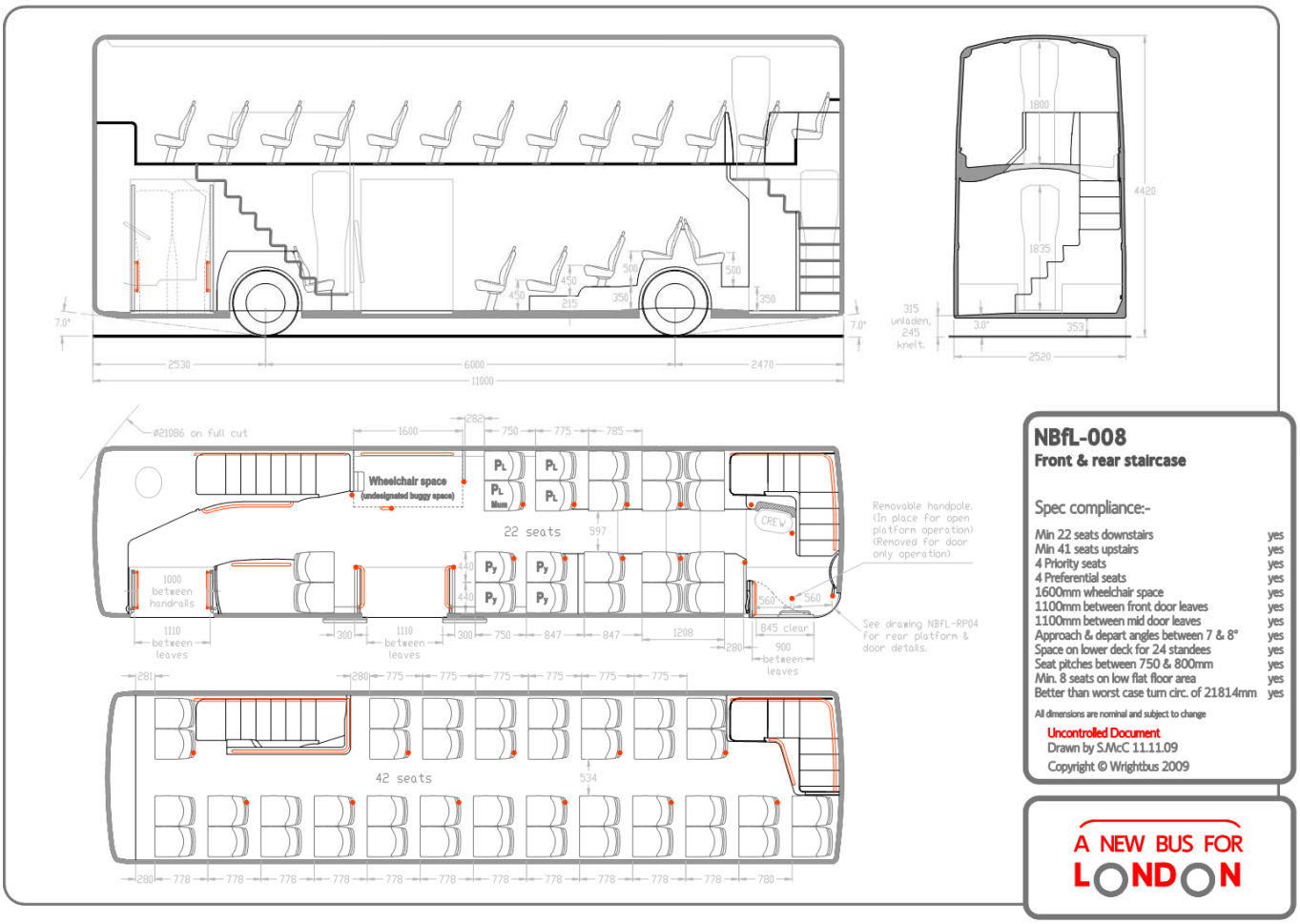
1. Overview of Bus Configuration

1.1. The NBFL vehicle is an 11m double deck equipped with two staircases and three apertures. As indicated on the general arrangement drawing below.


NBfL-008
Front & rear staircase
Spec compliance:-
Min 22 seats downstairs yes
Min 41 seats upstairs yes
4 Priority seats yes
4 Preferential seats yes
1600mm wheelchair space yes
1100mm between front door leaves yes
1100mm between mid door leaves yes
Approach & depart angles between 7 & 8° yes
Space on lower deck for 24 standees yes
Seat pitches between 750 & 800mm yes
Min. 8 seats on low flat floor area yes
Better than worst case turn circ. of 21814mm yes
All dimensions are nominal and subject to change
Uncontrolled Document
Drawn by S.McC 11.11.09
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Wheelchair space
(undesignated buggy space)
22 seats
42 seats
Removable handpole. (In place for open platform operation) (Removed for door only operation)
See drawing NBfL-RP04 for rear platform & door details.
A NEW BUS FOR LONDON

Figure 1 - General Arrangement Drawing of NBfL

1.2. The front and centre apertures shall be power operated services doors.

1.3. The third aperture shall be equipped so that it can be configured to operate in two different modes. Stowable bodywork will allow the vehicle to be configured as either an open platform or as a third service door, dependant upon operational requirements. The current design of the stowable bodywork is indicated in the following drawings.

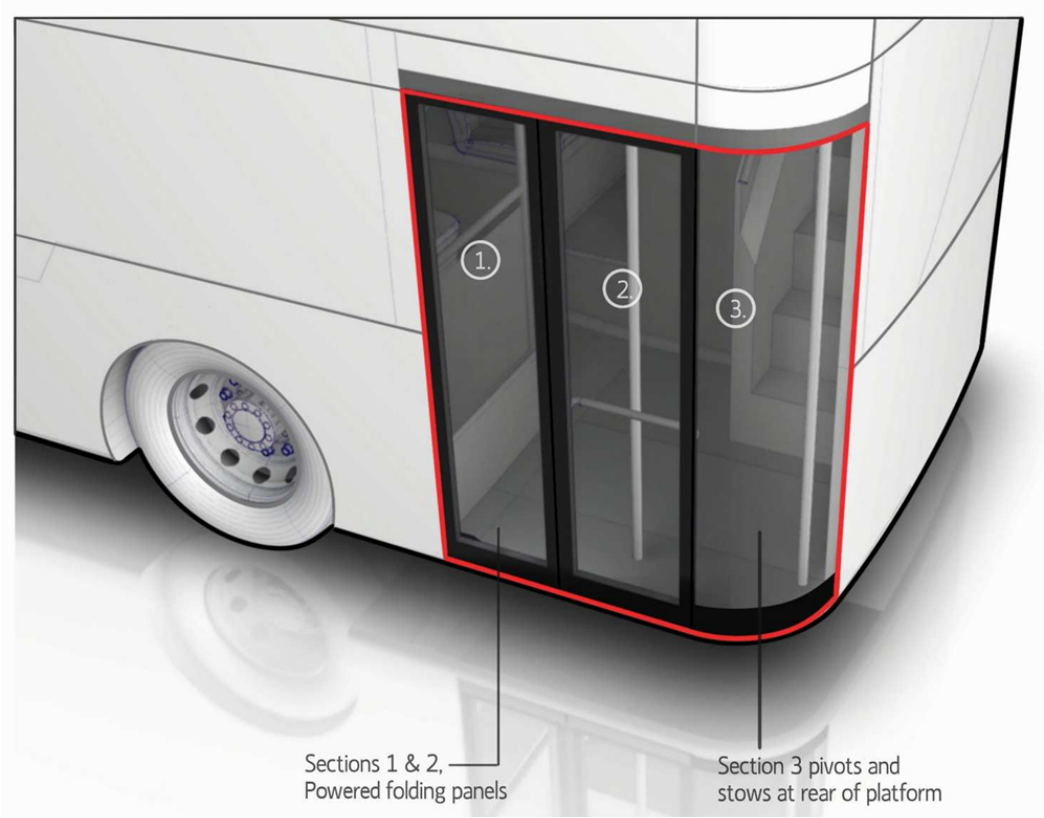


Figure 2 - General Arrangement of Third Aperature

Sections 1 and 2, shown in blue on figure 3, shall be a power operated, bi-folding glass panels. This is the section of the stowable bodywork which will operate a service door.

Section 3, shown in magenta in Figure 3, is a hinged panel which is either locked in the open or closed position.

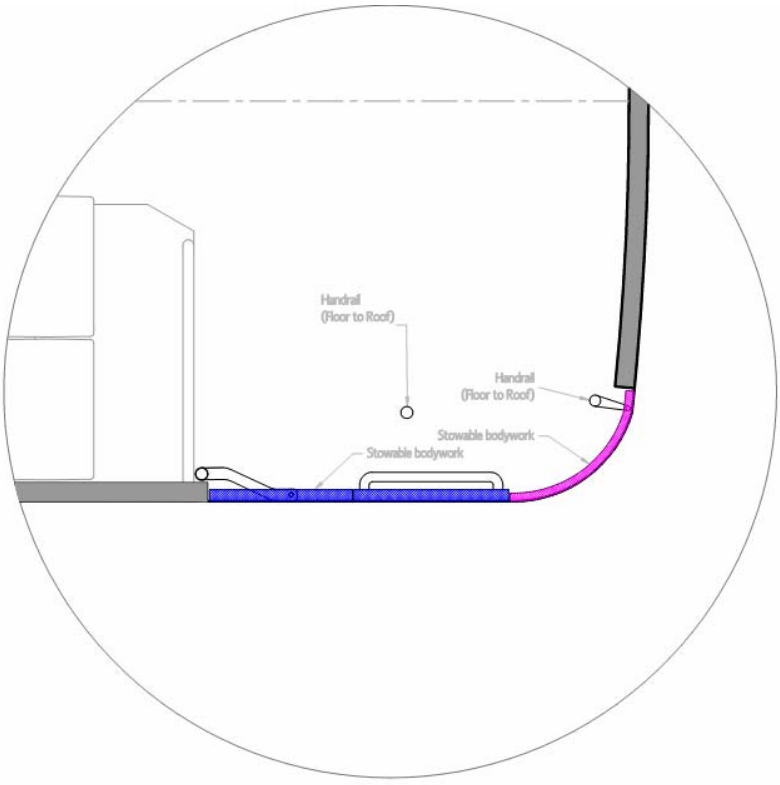


Figure 3 - Stowable Bodywork viewed from above

2. Bus operation in open platform mode with conductor

2.1. It is intended that the bus will operate with a driver and conductor (crewed mode) during the busy peak daytime periods Monday to Friday. The bus will at all times have three apertures at which passengers can board and alight under the open boarding principle: the front and centre apertures will be power operated service doors (dual leaf with 1100mm clear width), and the third aperture will be the open platform.

2.2. During these periods and only when a conductor is present, the rear open platform will be set in the "locked open" configuration with the front and rear panels of the stowable bodywork locked in their stowed positions. In this configuration driver control of the powered front folding door panels is disabled.

2.3. The front and centre entrances/exits will be controlled by the driver as "powered service doors".

2.4. Passengers will be able to board and alight at any of the three entrances. Fare validation for pre-pay cards will be by means of card readers at all three entrances.

2.5. The conductor's primary role will be to supervise the boarding and alighting of passengers at the rear platform.

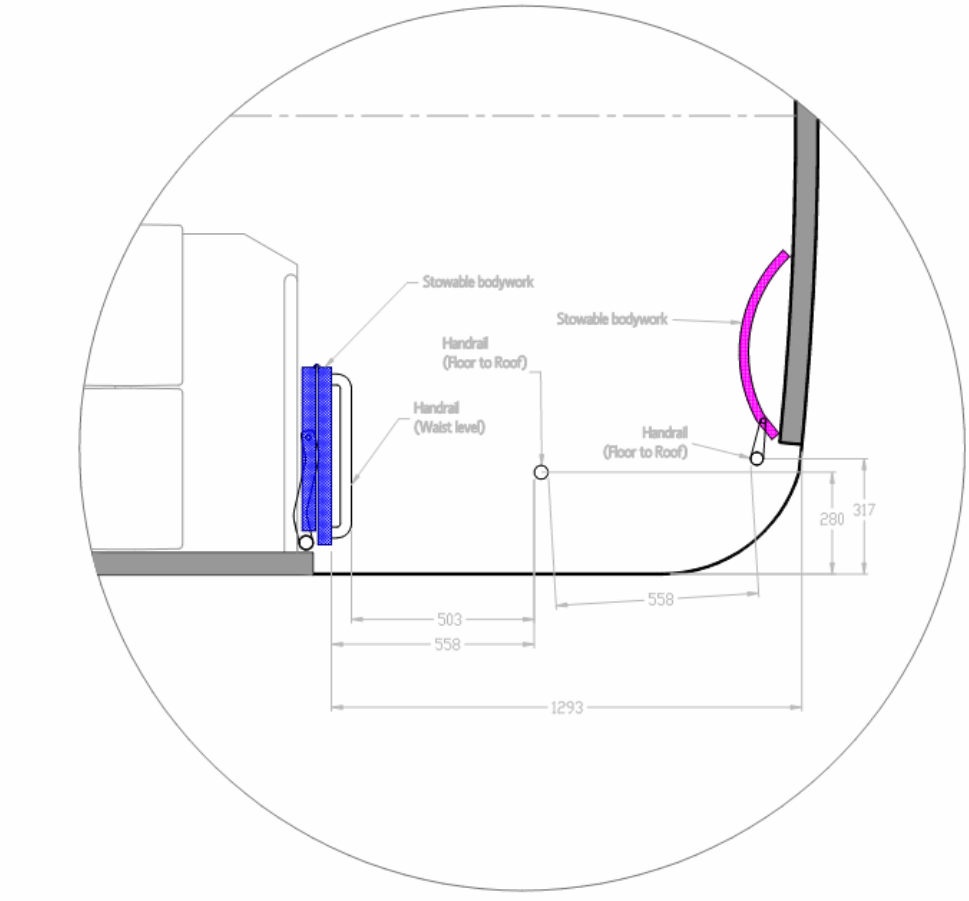


Figure 4 – Plan View in Open Rear Platform Configuration

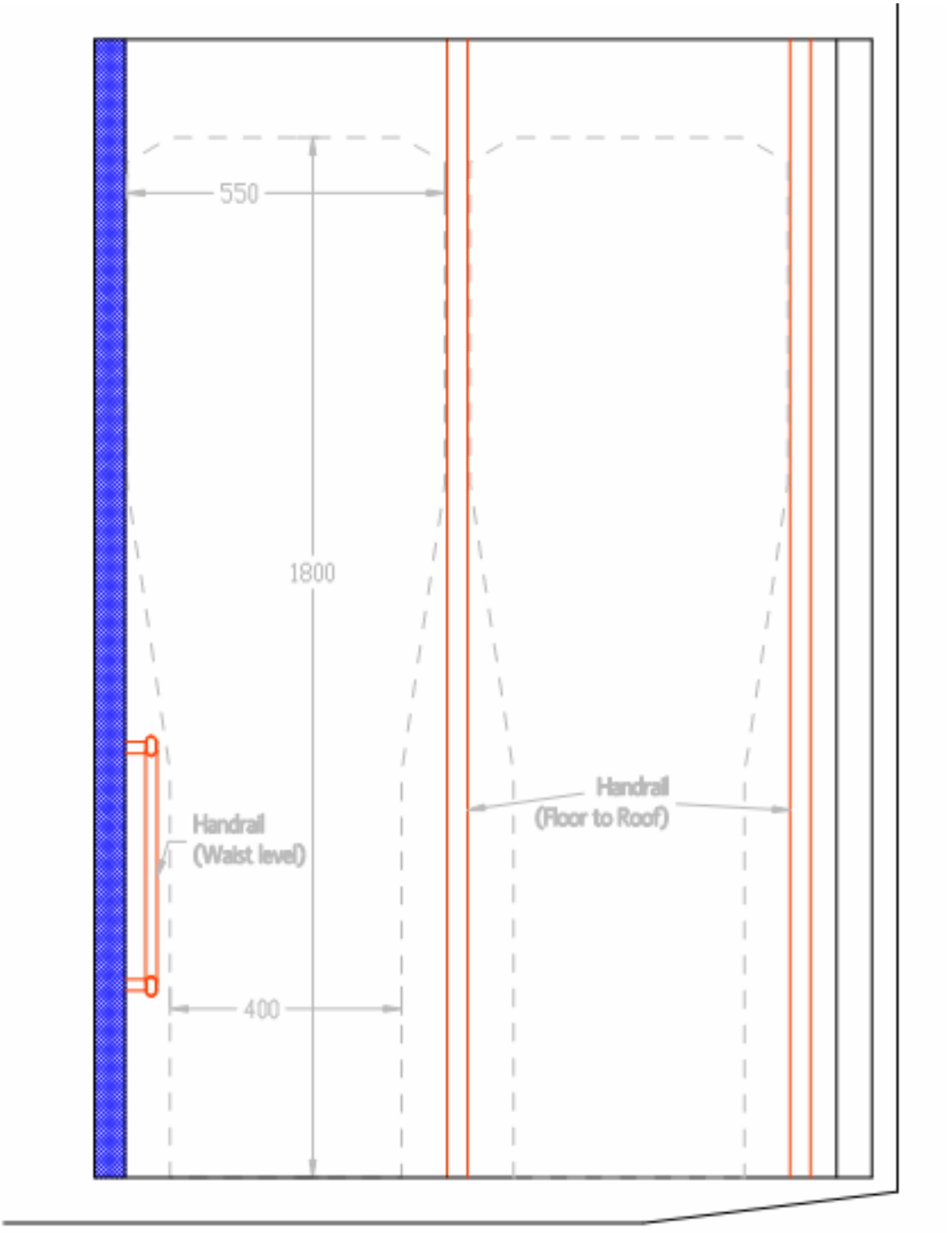


Figure 5 - Side Elevation in Open Rear Platform Configuration

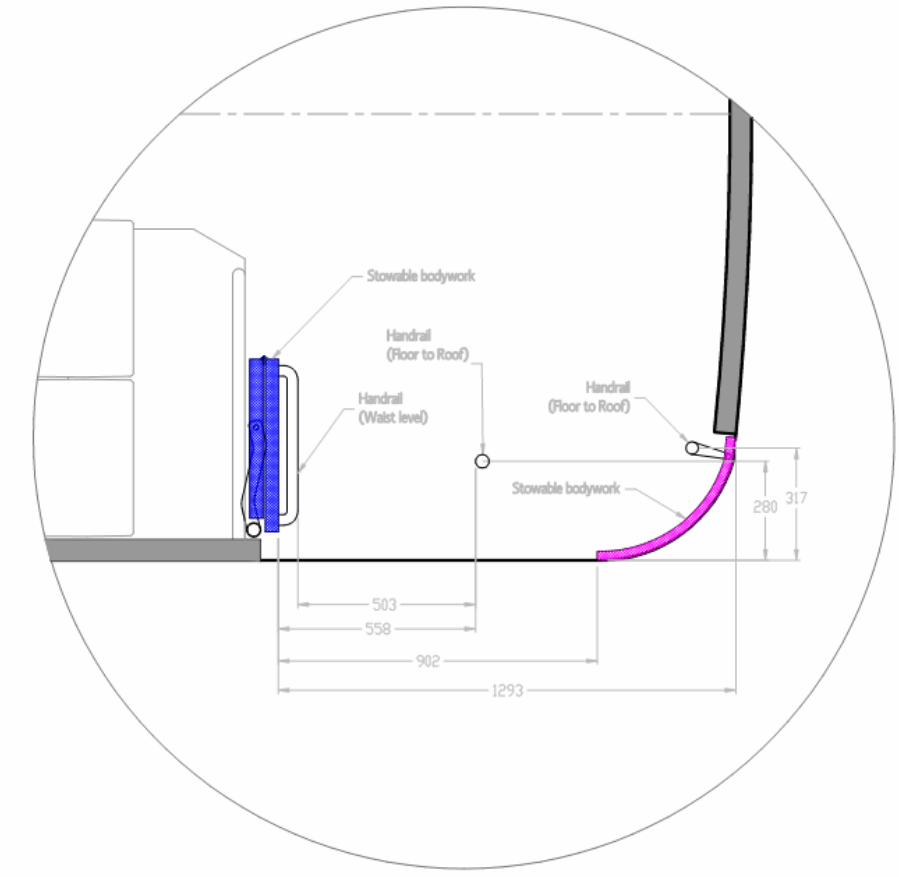
3. Bus operations in driver-only mode

3.1. Outside of peak daytime periods it is intended that the bus will operate in driver-only mode (otherwise known as one person operation – OPO). The bus will at all times have three apertures at which passengers can board and alight under the open boarding principle: the front and centre apertures will be power operated service doors (dual leaf with 1100mm clear width), and the third aperture will be a power operated service door – the clear opening width can be seen in figure 6 and 7.

3.2. During these periods the door panels and stowable bodywork to the rear platform will have been manually re-configured into the “closed” position. This requires the rear curved panel to be brought out from its stowed position and locked into its “closed” position, and for the front folding door panels to be unlocked from their stowed position and for power and control systems to be restored to them. In this configuration the driver is able to initiate the opening and closing sequence of all the doors in unison or individual doors as the situation requires.

3.3. Passengers will be able to board and alight at any of the three entrances. Fare validation for pre-pay cards will be my means of card readers at all three entrances.

3.4. The driver will be responsible for opening and closing doors and for determining when to pull away from a bus stop. Visual monitoring of the centre door and rear platform door will be provided to the driver via CCTV.



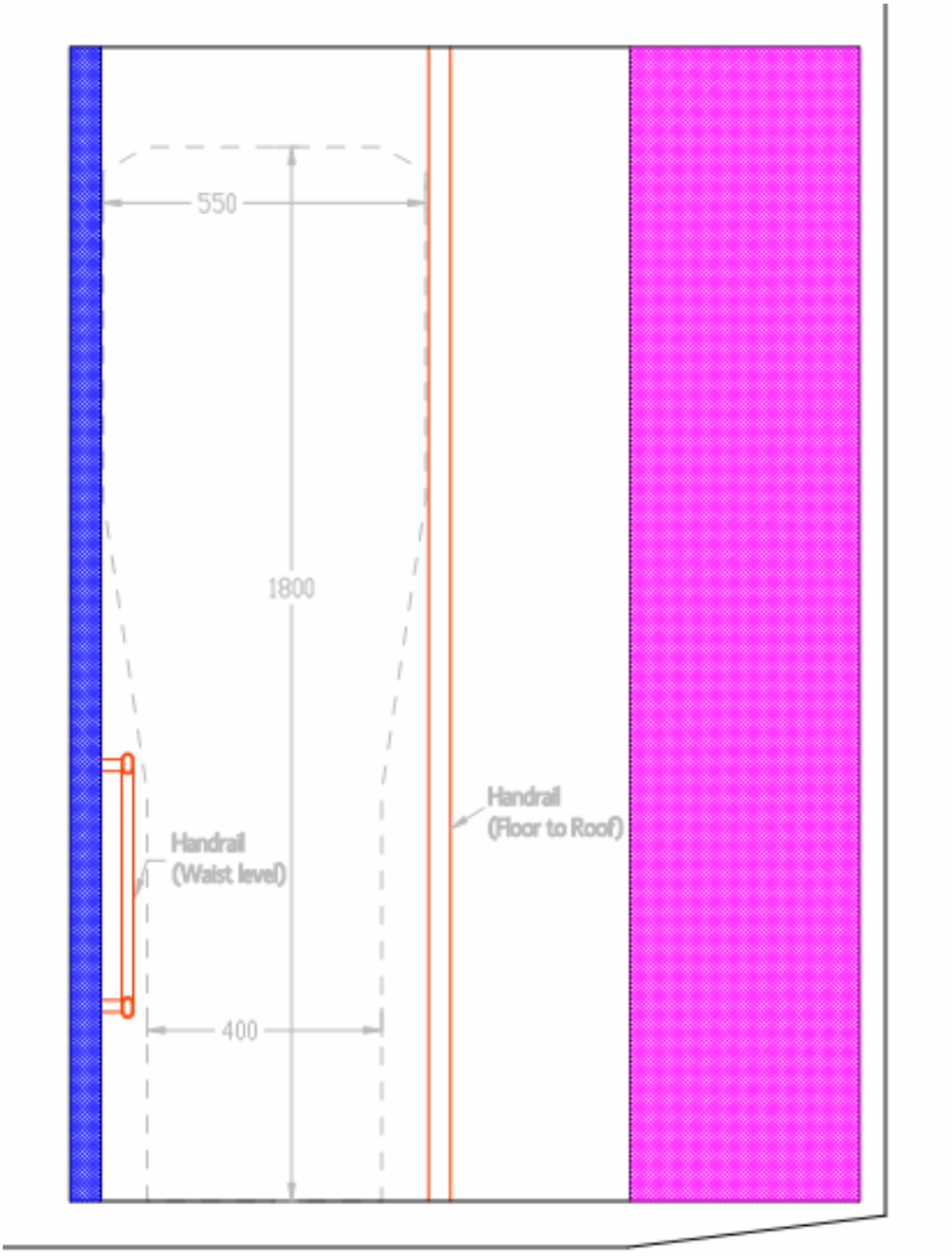


Figure 7 - Side Elevation Configured as Third Service Door

4. Changeover from one mode to another

4.1. To Change from Rear Platform Mode to a Third Service Door.

Step 1 – Unlock curved panel from stowed position. This operation will require a special key or tool.

Step 2 – Hinge curved panel outwards to close off rear portion of the platform

Step 3 – Using special tool or key lock curved glass panel in the deployed position.

Step 4 – The power operated panels will currently be locked in the stowed position. A key operated electrical switch will disable the signal that keeps the door locked in the open position and enable the door to be operated from the drivers cab.

4.2. To Change from to a Third Service Door Operation to Rear Platform Mode.

Step 1 – The power operated panels will currently controlled from the drivers cab. A key operated electrical switch will disable the drivers control to the door, and apply a signal to lock the door in the open position.

Step 2 - Unlock curved panel from deployed position. This operation will require a special key or tool.

Step 3 – Hinge curved panel inwards open the rear portion of the platform

Step 4 – Using special tool or key lock curved glass panel in the stowed position.